DOCUMENT RESUME

ED 035 415 JC 700 032

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TITLE Curriculum.
INSTITUTION American Association of Junior Colleges, Washington, D.C.; California Univ., Los Angeles. ERIC Clearinghouse for Junior Coll. Information.
PUB DATE Feb 70
NOTE 16p.
JOURNAL CIT Junior College Research Review; v4 n6 Feb 1970

EDRS PRICE EDRS Price MF-$0.25 HC-$0.90
DESCRIPTORS *African American Studies, *Curriculum Development, *Curriculum Planning, *Instructional Staff, *Junior Colleges, Teaching Methods, Urban Schools

ABSTRACT

The literature in five curriculum-related areas is reviewed. The first article stresses the need for rational curriculum planning in the junior college. To meet this need, curriculum decision-makers must arrive at educational objectives that will lead to the achievement of intended learning and the attainment of institutional purposes. The second article reviews the report of a project which showed that a composite of instructional procedures resulted in decreased student attrition and greater achievement. The third article concerns black studies in the junior college. It is generally agreed that courses in black studies should be introduced and more black instructors should be employed. There are serious conflicts between black activists and educators regarding the staffing, content, and purpose of the courses. The fourth article presents a staffing rationale for curriculum development in the junior college. The functions of course coordinator and program coordinator are outlined. The last article discusses intercampus curriculum coordination in an urban community college system. The problems of preserving individual rights within a large bureaucracy are discussed. (MS)

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Volume 4, Number 6

ERIC

JUNIOR COLLEGE RESEARCH REVIEW

February 1970

Published by the American Association of Junior Colleges

ED035415

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NEEDED:

RATIONAL CURRICULUM PLANNING

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Rational curriculum planning involves the specification of discrete types of curricular decisions and the ordering of these decisions into a hierarchy of logical relationships. The value of this approach rests in promoting the widest possible understanding of "who makes what decisions" among all members of the collegiate setting. Concomitantly, it provides a means for evaluating the effects of these decisions in terms of institutional purpose and student learning. An understanding of the calculus of curricular decision-making is certainly needed in two-year colleges—as it is in most schooling. The need for evaluating educational programs in junior colleges has become a truism of the field.

Junior colleges interested in rational curriculum planning will have to develop most of their own tools, because there is precious little writing on junior college curriculum planning in the literature. In fact, the latest substantive discussion of curricular issues in the two-year college, B. Lamar Johnson's *General Education in Action* [7], is now nearly twenty years old. However regrettable the lack of curricular development tools may be, it is understandable for two important reasons. On the one hand, ever-increasing attention has been devoted in recent years to an apparently widely recognized need for improving instruction in two-year colleges, and many of the most thought-provoking writings in the past decade have been concerned with innovative programs and improved instructional practices. On the other hand, curriculum planning at all levels of American schooling has been hampered generally by what two scholars have called the "dust bowl" empiricism [4] and the "meta-metatheoretical" nonsense [11] of contemporary curriculum inquiry.

This essay advances one notion of rational curriculum planning that can be helpful in dealing with problems of curriculum development, but a caveat or two is in order. It is argued here, in contrast to the premise of Clyde Blocker and his associates [1:202], that there is a fairly clear-cut distinction between curriculum and instruction. (Indeed, without that distinction, fruitful curriculum planning will not likely materialize.) Secondly, the focus here is on the "classical" approach to curriculum, which is concerned with *ends*, rather than with what Donald Meyers labels the computerist approach, which is concerned with *means* [9]. The defined outcomes model developed by Arthur Cohen [3:181-205], for example, illustrates the number of computerist designs available to curriculum planners.

Pursuing rational curriculum planning in the classical mode, with attention directed to ends rather than means, is important since it serves to narrow the ever-present gap between the image and the practice of schooling. Only by systematic efforts to bridge the gap between the ideal-laden images of the two-year college and the actual practice of junior college schooling will the field be able to address itself squarely to the long-standing identity crisis of the community junior college, to the more recent issues of irrelevant curriculums, and to the intemperate criticisms of the two-year curriculum by such worthies as Christopher Jencks and David Riesman [6].

A key to rational curriculum is rigor in the definition of terms and clarity in the construction of concepts. The following is the framework of base-line definitions and concepts, rooted in the scholarship of John I. Goodlad and the classical curriculum theorists. The framework suggests a language whereby practitioners may at least communicate ideas about curriculum.

A definition of *curriculum* appropriate for rational planning is not easy to come by. Contemporary usage of the term, for example, emphasizes descriptively what schools and colleges offer students in the form of subject matter courses, activities, and the great catchall—experiences. Not only does this notion that courses, activities, and experiences constitute a curriculum lack the necessary precision required for thoughtful planning, but moreover, it is confusing. Opportunities can be designed for students to experience learning, but the experience itself cannot be planned. Although courses and activities are opportunities for students to learn, still such a curriculum does not, perforce, specify the ends toward which student learning is directed. Witness the amount of student criticism of today's curriculums that highlights the absence of clearly established ends in curricular and extra-curricular activities [12].

Curriculum Defined

Goodlad has argued that curriculum should be defined as a "set of intended learnings" [5:13-14]; that is, statements of ends toward which student learning is to be directed and by which institutional purposes may be evaluated. This definition of curriculum is fully compatible with rational planning. In fact, without it, the idea of rational curriculum planning lacks special signficance. Moreover, the notion that curriculum is a set of intended learnings brings clarity to "defined outcomes" in the classroom and "systems approaches" in a program of study, two instructional planning designs that have been implemented to some extent in several junior colleges.

Given the definition of curriculum as a set of intended

learnings, what are the categories of curricular decisions necessary for rational planning? Four are suggested here: educational aims, educational objectives, learning opportunities, and instructional objectives. Undeniably, these terms and the definitions outlined below will be familiar. Eschewing arcane educational jargon will surely foster more quickly an intelligent dialogue among practitioners!

Educational Aims

Educational aims are the broad purposes for schooling, the remote ends for the guidance of schooling activity. Goodlad observes that:

> The selection of educational aims involves, first, selection from among values [extant in society, the disciplines of knowledge, etc.]; second, derivation of ends [from the values selected] which can be achieved through education; and third, choices of those aims deemed most relevant to the specialized interests of the institution involved [5:43].

Selecting ends that can be attained through schooling and adopting the most relevant for a particular two-year college are processes influenced to some degree by legislative enactments and the purposes of other institutions. Yet the precise character of a college's educational aim is determined within a college. Stated aims may be general educational, disciplinary, vocational-technical, etc. An example of one commonly stated aim of general education for junior college students is "exercising the privileges and responsibilities of democratic citizenship" with increasing competence. A disciplinary aim might deal with the scope of knowledge needed by students to succeed at the baccalaureate level in one of the disciplines of knowledge. Vocational-technical aims typically focus on the employment students will be able to get after pursuing a program of study in a two-year college.

Educational Objectives

Goodlad defines an educational objective as a "statement of what students are to know, be able to do, prefer or believe as a consequence of being in the [school] program" [5:17]. These objectives may be, in part, variables independent of any particular group of students. The establishment of educational objectives as independent variables in professional and technical training programs is customary in many two-year colleges. For example, the educational objective of being able to type 60 words per minute without error is one such independent variable. Students achieve that level of competency or fail to attain the objective. Other educational objectives may be cast in the form of dependent variables, whereby student attainment of an objective is geared to individual talents and limitations. In contrast to the one objective in typing, there are many ways a student may attain educational objectives dealing with competence in democratic citizenship.

The distinction between an educational aim and an educational objective is not artificial. The attainment of the former is external to the institution, while the achievement of the latter is internal. For example, a two-year college might establish (as several have) aims stating that students completing a practical nursing program will pass a state certification examination or be employed as practical nurses. An education objective subsumed by that program would surely involve ability to perform particular kinds of nursing skills. Note that though knowledge of skills is under the control of a college's nurses training staff, the college can neither vouchsafe that every student nurse will pass the certification test nor guarantee that she will be employed as a practical nurse when she graduates from the program. Certainly if an appreciable number of graduating students in nursing did not pass the test or did not find or elect employment as nurses, the aims or educational objectives of the program would need to be examined.

Learning Opportunities

A learning opportunity is a situation created within schooling that identifies the general character of what students will be expected to do in seeking to attain educational ends. This may be a course or a program of study, but it might also be a series of what are commonly considered extra-curricular activities such as lectures, concerts, etc. Learning opportunities are by far the most readily understandable curricular offering. Indeed, most two-year college curricular decision-making is perceived only in terms of learning opportunities, and what the nature of collegiate learning opportunities should be commands the attention of literally scores of scholars and publicists every year. Still the learning opportunity is but one of four curricular decisions.

Instructional Objectives

Cohen defines an instructional objective as "a specific, observable student action or product of student action." He further points out that, to satisfy the definition of an instructional objective, "it must first specify something the student is to do, second, state the circumstances under which he will do it, and third, note the degree of accuracy with which he will perform the action" [2]. These are task-oriented objectives in that they ask students to write, to describe, to solve, to compare and contrast, etc. Unlike the educational objective that anticipates desired terminal behaviors, this instructional objective spells out what students are to do in quest of an educational end. Those familiar with Robert Mager's highly readable "cookbook" for *Preparing Instructional Objectives* [8] understand the function of these objectives.

Fashioning an instructional objective is not fully a curricular decision. From Cohen's perspective, the instructional objective is essentially an instructional concept since the specification of tasks and the conditions of learning are instructional, not curricular, activities [3:167]. Possibly the instructional objective (even if it is not framed in so-called behavioral terms) is best conceptualized as the tie-in between the range of curricular decisions defined above and a comparable range of instructional decisions that deal with organizing centers, learning theory, and so forth.

Much confusion exists in the development and evaluation of curriculums because educational aims and objectives are considered synonymous, thereby mixing intended learnings that can be evaluated only external to the college with those that can be assessed before students leave the campus. More confusion results from the determination of learning opportunities *before* educational objectives have been established. And the greatest confusion comes from extracting instructional objectives willy-nilly from the subject matter of learning opportunities. Therefore ordering the categories of curriculur decisions into a logical operational scheme for decision-making is at the heart of rational curriculum planning.

Goodlad feels that rational curriculum planning is based on the assignment of curricular decisions to three "levels" of decision-making in schooling, according to their organizational remoteness from students [5:24-39]. Closest to the student is the instructional level, where the teacher operates. Further removed from the student is the institutional level, at which the "total" faculty and the administration—or possibly a curriculum committee—function. Even further removed is the societal level, which includes a governing board and a number of other legal and extra-legal controlling agencies (e.g., the legislature, Congress, state board of education; other colleges and universities, accrediting agencies, and professional and academic associations.) Goodlad assigns the determination of educational aims to the societal level, educational objectives and learning opportunities to the institutional level, and in-

structional objectives to the instructional level. The pertinence of Goodlad's organizational "levels" concept to the two-year college has yet to be systematically examined, though one paper formulates some hypotheses about the "irrationality" of junior college curricular decision-making with respect to this paradigm [10].

However, Goodlad's assignment of curricular decision-making to organizational levels in schooling is probably not nearly as significant in rational curriculum planning in junior colleges as is the concept of ordering curricular decisions according to the remoteness of the decision from students. (After all, the determination of educational aims by a teacher or a team of teachers may be "rational" in two-year colleges.) It seems logical to link together the ends toward which student learning is directed and institutional purposes achieved in a chain of decisions from the general to the most specific. The task of making these decisions might be assigned to curriculum committees, departments of instruction, individual teachers, or any combination of these units.

The way out of confusion in curriculum development is for curriculum decision-makers first to decide on education aims, then to translate these aims into a spectrum of educational objectives. Proper translation will require attention to comprehensiveness (are all the aims being defined?) and to internal consistency (are all the objectives consonant with one another?). These are the first steps in the logical derivation of intended learnings and in the bringing of a curriculum within the reach of students. It must be kept in mind, however, that the ends of junior college schooling that cannot be assessed on the campus should not be mixed with those that can be so evaluated.

The next task is to identify learning opportunities. Ideally, these would be constructed out of one or more educational objectives, but, as courses of instruction and programs of extra-curricular activities already exist, they would have to be revised—where necessary—to conform with stated aims and educational objectives previously agreed upon. This is not as difficult as it seems at first; learning opportunities in technical-vocational programs for the most part are developed in this manner, as can those in the arts and sciences. One way to evaluate the general educational thrust of courses in the arts or sciences is to ferret out educational objectives from general education aims to learn if these objectives really get at the aims instead of at disciplinary knowledge and skills.

The curriculum decisions closest to the student are the instructional objectives. Though they need not be, these are customarily derived from the subject matter of learning opportunities. The rationality of an ends-oriented curriculum is preserved if instructional objectives are derived from the more remote educational objectives. Besides, the salience of educational aims and objectives will likely become manifest if the students can visualize those ends in terms of the instructional objectives immediately before them. But where does subject matter fit into a curriculum of intended learnings that reaches from today's instruction objective to some perceptible future end? Subject matter is a means for reaching that end, not an end in itself. As with the determination of instructional objectives, the choice and use of subject matter is more often an instructional than a curricular decision.

Rational curriculum planning is concerned with ends—the achievement of intended learning and the attainment of institutional purposes. This by no means suggests that attention to improved instructional means and innovative practices is inappropriate. Innovation is relevant if it seems to enhance the prospects of attaining intended learnings and fulfilling institutional purposes. The adoption of an innovation on ideological grounds, without any clear end that can be evaluated, is neither an appropriate procedure nor a rational practice.

Rational curriculum planning is equally concerned with institutional self-study. The derivation of ends, from broadly stated educational aims to the specification of instructional objectives, is a provocative evaluative process. Any two-year college seeking to plan its curriculum as a set of intended learnings along the lines suggested here would be providing the field with an invaluable case study in reconciling the image with the practice of junior college schooling. For the quest of rational curriculums promotes a dialogue on ends within the entire college community and prefaces a continuing conversation about institutional purposes. It is out of this dialogue that the institutional identities of two-year colleges will emerge.

Rational curriculum planning will help reconcile the practice with the image of junior college schooling. It will yield information about curriculum in the two-year college that not only provides data useful to decision-makers in classrooms, administrative offices, and curriculum committees, but also broaden our understanding of the two-year college. Without rational curriculum planning, there will be no dialogue on one of the "real" issues in the field, practitioners will continue plowing their respective educational furrows in mutual isolation, and the gap between image and practice will be neither adequately understood nor appreciably narrowed.

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THE MINI-COLLEGE REVISITED

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Rational curriculum formulation and development require a systematic flow of data regarding program outcomes. Frequently, however, junior college "experimental" programs are introduced and abandoned with no attempt made to assess their effects. This paper presents the results of a study that *did* assess a new program.

An earlier report [ED 029 640] of a pilot project at El Centro College (Texas), indicated that a composite of instructional procedures, involving large lecture sessions, seminars, reduced class time, programmed instruction, and student "task teams," resulted in decreased student attrition and greater achievement. Further experimentation with more rigorous statistical evaluation procedures is reported below [1]. Standardized tests employed in this study permit an examination of academic achievement in specific areas (English and history), attitudes toward the subjects, and critical thinking ability.

The subjects were college students enrolled in first semester English composition and American history courses during the fall semester of 1968-69. Students who had elected to take concurrently both their English 101 and History 101 courses in the Special Program in Curricular Experimentation schedule pattern comprised the experimental group. The same students were in both the Special Program English and the Special Program history.

Five regularly scheduled sections of English 101, chosen randomly outside the jurisdiction of the investigator, comprised the English control group. Five regularly scheduled sections of History 101, also chosen randomly, comprised the history control group. Control classes met in the enrollment pattern of 25-40 students three hours per week. Students in the experimental group were enrolled in *both* English composition and American history in the Special Program in Curricular Experimentation.

The experimental treatment was a composite of procedures used only with the Special Program English and history students and had certain recognizable characteristics. The formal schedule of the experimental classes provided for two hours of class time instead of the conventional three. A planned program of library research, films, slides, and tape for use outside of class was developed and implemented for the experimental group only. Study guides were provided for student use.

The formal schedule of the experimental group had two parts. One was the general assembly. Each general assembly was one hour in length, and all students enrolled in the Special Program sections were required to attend. This time was used for lectures and examinations. The other part of the schedule was a one-hour seminar each week in English and another in history. These were limited to 15 students and were scheduled by computer so that each group of students remained together for all seminars. A planned tutorial program replaced the traditional third hour. The teacher assigned instructional meetings or activities as necessary and helpful for each student's progress. Often the student studied independently and at his own rate.

Six teachers were involved; all had similar professional credentials. An English teacher and a history teacher worked with the experimental groups. The control groups were taught by two history teachers and two English teachers.

Both experimental and control classes followed the college's course of study for English 101 and History 101 and used the same textbooks. The importance of their roles in the experiment was discussed with all experimental and control classes during the testing periods and visits by the investigator.

The investigator worked with all experimental and control teachers to identify more clearly the expected outcomes of the courses. Teachers of both groups also worked with the investigator in pre-semester meetings and periodically during the experiment to coordinate comparable methodological approaches and procedures.

Alternate forms of four tests were administered before and after the experimental treatment: forms E and F of the 1965 revision of the *Crary American History Test*, forms 1A and 1B of the *Cooperative English Expression Test*, forms YM and ZM of the *Watson-Glaser Critical Thinking Appraisal*, and forms A and B of the *Purdue Master Attitude Scale, Part A, Attitude Toward Any Subject*.

Data were collected within the first 14 and the final 14 class days of the semester. *The American College Testing Program* battery was administered to entering students as a part of the enrollment procedure of the college. These scores and pretest scores of the criteria instruments were used as covariates.

Students who had failed the equivalent of English 101 or History 101, students over 30 years of age, and students concurrently enrolled in the Audio-Tutorial Biology courses of the college were not included in the analyses.

All hypotheses were restated in null form for testing with the equivalent of a one-way (single classification) analysis of variance design for two groups. The level .05 of significance was selected for rejecting the null hypotheses. A multiple-linear regression computer program was used with a Model 40 IBM 360 computer in the Dallas County Junior College District Data Processing Center.

The following is a summary of findings:

1. The mean gain made by the experimental group was not significantly greater than the mean gain of the control group on the *Crary American History Test*, the *Cooperative English Expression Test*, and the *Purdue Attitude Scale* for English. Significant mean gains were made by the experimental group on the *Watson-Glaser Critical Thinking Appraisal* and the *Purdue Attitude Scale* for history.

2. With sex held constant, statistically, the mean gain made by the experimental group was not significantly greater than the mean gain of the control group on the *Crary American History Test*, the *Cooperative English Expression Test*, and the *Purdue Attitude Scale* for English. Significant mean gains were made by the experimental group on the *Watson-Glaser Critical Thinking Appraisal* and the *Purdue Attitude Scale* for history.

3. With sex and ACT English score held constant, statistically, the mean gain made by the experimental group was not significantly greater than the control group on three of the four measures. Significant mean gains were made by the experimental group on the *Watson-Glaser Critical Thinking Appraisal*.

4. With sex and ACT mathematics score held constant, statistically, the mean gain made by the experimental group was not significantly greater than the control group on three of the four measures. The measure showing significant gains by the experimental group was the *Watson-Glaser Critical*

Thinking Appraisal.

5. With sex and ACT social studies score held constant, statistically, the mean gain made by the experimental group was not significantly greater than the mean gain of the control group on three of the four measures. Significant mean gains were made on the *Watson-Glaser Critical Thinking Appraisal* by the experimental group.

6. With sex and ACT natural science score held constant, statistically, the mean gain made by the experimental group on three of the four measures was not significantly greater than the control group. Gains on the *Watson-Glaser Critical Thinking Appraisal* were significantly greater for the experimental group.

7. With sex and ACT composite score held constant, statistically, the mean gain made by the experimental group on three of the four measures was not significantly greater than the mean gain of the control group. On the *Watson-Glaser Critical Thinking Appraisal,* however, the experimental group made significant mean gains.

8. With sex and pretest score held constant, statistically, significantly greater mean gains were made by the experimental group on the *Watson-Glaser Critical Thinking Appraisal* subtest of *Evaluation of Arguments* as compared with the English control group. There were no significant differences in gains on the other three measures.

Within the limitations of this study, the following conclusions were made:

1. achievement in the factual content of a discipline is not significantly related to variations in instructional methodology,

2. attitude changes toward subjects vary from discipline to discipline although the same methods of instruction may be used,

3. the ability to think critically may be increased by the deliberate use of instructional procedures designed to achieve this goal.

Based on the conclusions of this study, the following inferences were drawn:

1. with the added evidence of this study, teachers may proceed to use the many methods and techniques at their command, with reduced concern for resulting content achievement differences,

2. the evidence of this study may contribute to a further awareness of the need to consider the appropriate relationship of method to subject matter when attitudinal goals are involved in planning,

3. the evidence of this study may encourage teachers to provide for deliberate manipulation of the instructional environment to directly stimulate growth in the processes of critical thinking.

The conclusions, implications, and limitations of this study suggest several recommendations for further research.

1. The present study should be replicated using other appropriate standardized instruments as they become available.

2. Research is needed on the appropriateness of various approaches to different subject matter. Studies are needed on the identification of significant factors, such as the discipline's degree of reference to personal problems, to bodies of facts, to acquisition of skills, and to the level of academic sophistication.

3. The differences of instructors as they relate to the competencies required should be further explored.

4. Information on the importance of differences in students is needed. Correlation studies are needed on age, degree of emotional and social maturity, personality factors, and scores on socio-personal attitude scales.

5. The relationship of the current social climate to the effectiveness of different instructional methods should be identified. Implications of questions regarding a society characterized by social and protest manifestations should be explored. Research should try to identify characteristics of instructional methods that correlate with characteristics of the society's values.

6. Additional research should be done on the long-run effects of the two treatments.

7. Research on the effects of different combinations of the methods of instruction described in this study should be conducted.

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BLACK STUDIES

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As was true at San Francisco State College, junior college educators, in introducing Black Studies courses to the curriculum, reacted (and are reacting) to a critical situation in a political manner, "in the most practical and urgent sense of that term" [5]. In a majority of junior colleges, Black Studies courses were introduced under duress, "in an atmosphere of controversey, disruption and violence" [10]. Occasionally, administrators and faculty developed courses before demands became insistent; others developed them to forestall the demands.

Although the drive for incorporating Black history and literature in the curriculum antedated the Black Power drive, neither history nor English teachers could be persuaded to modify their courses to incorporate changes in the direction sought by Blacks. They were indifferent to or were unable

to comprehend the importance of broadening their courses to include material on the various racial and ethnic groups. They contended that, if they were to include Black material in all their courses, they would also have to include material on the Jewish, Irish, Italian, German and other ethnic groups who form American society.

By 1968, colleges began developing courses on various aspects of Black history and culture. In most instances, however, they were developed and taught by whites and incorporated in the regular departments. As the Black militants gained strength, these courses were rejected or revised and new courses were developed. In the larger colleges, the Black Studies courses were placed under a new department with a Black as head and usually with an all-Black faculty. Black student participation in the selection of instructors became common. In many classes, Black students forced white students to withdraw. The movement has progressed so far that Black activists will have no part of an eclectic approach. The separate-courses approach seems firmly established and not likely to be reversed soon.

The speed of development of Black Studies courses may be seen in a comparison of the catalog entries for 1968-69 and 1969-70 of a junior college that made more than a token effort to satisfy the aspirations of its Black students [13]. [Comparison of the catalogs of Cuyahoga Community College (Ohio), College of San Mateo (California), and the Chicago City Community College revealed the same patterns.] The 1968-69 catalog has one entry, "Afro-American Studies Curriculum," while the 1969-70 has four entries: "Afro-American Studies" subdivided into "Courses," "Curriculum," "Department."

In the 1968 catalog, a two-semester "History of the Afro-American" and a one-semester "History of Africa" appeared under History; a third, "The Negro in Contemporary Urban Society," under Humanities; a fourth, "The Afro-American in Contemporary Urban Society," under Social Science; and a fifth, "Contemporary Urban Problems and the Minorities," under Sociology. Another that could be considered in this category is "Contemporary Social Forces" in Sociology. An anthropology course, "The Peoples and Cultures of Africa," offered in the spring semester, did not appear in the 1968 catalog but is in the 1969 catalog under Afro-American Studies.

By September 1969, an Afro-American Department had been created to study the Black experience in Africa and America through an interdisciplinary curriculum composed of courses in anthropology, literature, social sciences, language, and psychology. Specifically the department intends:

1. to deal with legitimate and urgent academic material that traditional curricula have not dealt with in the past,
2. to provide an opportunity to complete a two-year undergraduate major in Afro-American studies,
3. to provide a comprehensive examination of the Afro-American experience, and
4. to define and encourage a new consciousness of the Afro-American experience.

The chairman and all instructors in the department are Black. In the 1969 catalog, the term "Negro" does not appear; it has been replaced by "Black" or "Afro-American."

Nine courses are listed in the catalog under the new department, some new and some transferred from other departments. Of the nine in the Afro-American Department, four deal with Africa; "Peoples and Culture of Africa," "History of Africa," "Elementary Igbo," and "The Culture and Language of Igbo." Originally the Foreign Languages Department offered Swahili, but Black militants forced a change, claiming that Swahili, the traders' language, was a painful reminder of the slave trade. Five courses deal with the Afro-American: "Psychology of the Afro-American," "The Afro-American in Contemporary Society," "Afro-American Literature," and a two-semester sequence, "The Afro-American in the Political and Social History of the United States." The last course attracts the most students, probably because it meets the state and local requirement for graduation and is transferable. Some courses not listed under the Afro-American division can be considered as responses to the needs and aspirations of Black students. One is offered in the Psychology Department as "Human Relations in the Urban Society." Except that this course covers "the problems of all minorities," it does not differ significantly from "The Psychology of the Afro-American." Two others in this category, "Law and Minority Groups" and "Police Community Relations," are offered in Police Science. Although no Black music course appears in the catalog, the Music Department offered "Survey of Afro-American Folksong" in fall 1969. In art, a single course combining "The Arts of Africa, Oceania, and Ancient America" contrasts with one on the "History of Oriental Art." No concession to Black demands seems to have been made by the Theatre Arts Department, which had been a target of Black militants.

The Los Angeles City College experience parallels that of many large colleges in and near the urban centers. In most colleges with small Black enrollments, "Black Studies" consists of a course or two. Macomb County Community College (Michigan) has "The Black Experience in White America." Santa Barbara City College (California) planned, for September 1969, a two-semester history sequence in African civilization and a course in minorities in the American political system.

At the College of San Mateo (California), the faculty, in response to the Black student's demands, recommended that four more courses be added to the six already in the minority curriculum and that, if a minority studies division were to be formed, its chairman should be a minority member of the faculty [18]. (Eight courses are listed in the catalog for 1969-70, in contrast to one in 1968-69.) In the Chicago system, Kennedy-King College offered nine courses and Southeast Campus offered eight in September 1969. Both colleges have large Black student enrollments [9].

By contrast, the Black Student Union of El Camino College (California), with its enrollment of 250 Blacks, demanded 25 new courses in a Black Studies curriculum under "Black Psychology," "Ethnic Literature," "Black Art," "Music," "Dance," "Language," "Black Sociology," "Black Theatre and Drama," and "Economics." The demands contained the most extensive and specific list of courses that had appeared up to that time. Although the President rejected the list as unreasonable, he did point out that an Afro-American Advisory Studies Committee had six subcommittees working on the development of courses in: Afro-American Literature; Literature of American Ethnic Groups; Afro-American Music; Speech-Theatre; Speech; Physical Education; and Psychology. The inclusion of physical education represented a first in that area.

Neighboring Mt. San Antonio College (California) in spring 1969 had five courses: "History of the Afro-American," "History of Africa," "Survey of Afro-American Literature," "Sociology of Ethnic Relations," and "Minority Group Dynamics in American Government." Committees were working on other courses in psychology, sociology, art, and music [16].

Courses so patently propagandistic as San Francisco State College's "Miseducation of the Negro" and "Sociology of Black Oppression" did not appear in the junior college cur-

riculums. However, Black militants did demand "meaningful and relevant curriculum for both white and [Black] students," that should include courses ". . . such as white racism and the black revolution" [17].

Rationale in Junior College

To some, perhaps most, Black junior college educators, the Black Studies courses introduced in the colleges are "an extension of the concept of liberal education" and an attempt to redress the balance caused by the failure of liberal education "to meet the needs of the minority students." Through Black Studies courses, Black students expect to achieve insights into "identity problems, ego strengthening, awakening of self-esteem, reassurance of human dignity, and development of group pride" [19, 20].

A similar rationale appeared in a flier announcing an Afro-American Studies Program at Merritt College (California). Under the heading "Afro-American Studies and Black Consciousness," the "essence of Black Consciousness" was stated as:

> . . . the redefinition of Afro-Americans by themselves in order to develop a healthy psychological identity to which other ethnic groups may relate in a positive, dignified, humanistic, manner. Education as an instrument for transforming culture and developing individuals will play a vital role in preserving the fruits of the Black liberation struggle—dignity, self-respect, and self-determination for *all* human beings.

White educators also defend the Black Studies courses because of their "potential for giving new meaning and relevance to the lives of black and white students" [10]. The President of Fresno City College (California), in response to the "Black Students' Union Demands" of May 12, 1969, repeated an earlier statement he made to minority students: ". . . much more can and must be done by Fresno City College to make the College experience more relevant to the needs of these students. . . . The demands reflect . . . a deep concern for the goals of self-assertion, self-direction, and self-determination, all of which characterize the free man and reaffirm his indivdual dignity and worth."

In general, junior college administrators reasoned that "the existing programs of study fail to meet the needs of Black . . . students" and, more cogently, that a college "committed to serving the educational needs of all of its students" could not ignore this important phase of Black student aspirations [17].

Educators, while conciliatory in their responses, did not accept the premises of the Black student extremists. The senate of El Camino College (California), in its response to Black student demands, concluded "that the Black studies program must be placed in the perspective of the overall program of the college." While acknowledging its value to Blacks and Whites, the Senate warned against training a large number of students "in such a relatively narrow field." Senate members preferred "to aid in turning out not only Black artists, writers, and musicians but also Black (and White) chemists, accountants, linguists, historians, welders, mathematicians," in order to "serve the cause of education with dignity, balance, and professional excellence" [3].

Although he welcomed the positive benefit of an occasion requiring a re-examination of his basic assumptions, the president of Macomb County Community College (Michigan) declared:

> It is crucial that we exercise our judgment in a dispassionate fashion, reaching our conclusions on the basis of what will serve the best interests of our institution. Unless compelling reason dictates, we are not justified in tampering with time-tested principles of academic procedures simply because an articulate, dedicated, and well-meaning group calls for change for the sake of change, rather than on merit [8].

Implications of Demands for Black Studies and Black Instructors

The issue of Black Studies is inseparably bound up with the issue of employment of Black instructors. On both issues, widespread agreement exists that courses in Black Studies should be introduced and that more Blacks should be employed. Beyond this, serious disagreement exists between the Black activists and the educators. It extends to the control of appointment and retention of staff; to the development, content, and purpose of the courses (including the texts to be used and the library books to be purchased); and to the admission of students. Educators insist that, since these are professional matters, students cannot be given a controlling responsibility in any of them. To capitulate will undermine academic freedom.

Public policy is opposed to segregation by Black or White. Recently the Department of Health, Education and Welfare ordered Antioch College (Ohio) to desegregate its Black dormitories and its Black Studies institute or lose its federal aid [14]. At the same time, HEW warned other colleges contemplating the establishment of autonomous Black departments that exclude white students and instructors that such action is in violation of Title VI of the 1964 Civil Rights Act.

Among the severest critics of the extremist position are some prominent Black educators. Professor W. Arthur Lewis of Princeton yields "to none in thinking that every respectable university should give courses on African life and on Afro-American life," but he hopes "that they will be attended mostly by white students." Black students must "reject any suggestion that black studies . . . be the major focus of their programs" [2]. Kenneth Clark of the City University of New York fears "that a separate Black program not academically equivalent to the college curriculum generally . . . reinforces the Negro's inability to compete with the whites for the real power of the real world" [12, 6:70].

The Black militants, supported by a small number of whites, brush aside these arguments, based on the traditional values of a white-oriented and white-dominated college setting. They demand Black-controlled Afro-American courses, curriculums, and departments in order to reverse the process that made "the Black man invisible, [denied] by omission or distortion, his contribution to the world's and America's history, [and] psychologically destroyed the minds of Black youth" [4, 11].

To resolve this issue, moderates propose a middle course as a bridge between the segregation now advocated and the ideal of integration that seems so remote. In this proposal, institutions will have racial and ethnic subdivisions, where students will study subjects in the humanities, arts, and social sciences—subjects in which the culture of the racial or ethnic groups will receive adequate treatment. In the "hard" subjects of technology, mathematics, and science, all students will study together. Such a plan may offer the opportunity for a "sensitive response to the desires of minorities to explore their own heritage, and will result more readily in eventual integration" [6:84].

A junior college professor, in an analysis of the dynamics of the ethnic studies, sees "two opposing trends: the one towards separatism because of psychological need; the other towards independent integration, the rational approach. . . ." He predicts that the solution will come as a reaction to the conflict between the separatists and the integrationists. This conflict will be reflected on the affective level in those areas common to all humanity: (1) the concept and realization of brotherhood, (2) the search for a meaning of existence, (3) the capacity for joy of living, and (4) the quality of the relationship between members of the ethnic group in the family, community, and national environment.

In each of these areas, the political point of view emphasizes ethnic separatism; determining one's own destiny and superiority, and achieving political action and structure. The non-political aspects concentrate on universal human experience, interdependent experience, uniqueness as opposed to superiority, and relationship of ethnic groups in a pluralistic society. The author postulates three stages in the evolutionary process: (1) sudden awareness, a traumatic experience; (2) employment of political means to achieve satisfactions revealed by the sudden awareness; and (3) the transition "from social satisfaction and political aspirations to the contemplation of the non-political aspects of a liberal education" [20].

Evaluation

Students enrolled in Black studies courses in reasonably large numbers, but fewer than the activists expected. In fact, the enrollment at one college was so disappointing that the militants asked that enrollment be compulsory for Black students. The editor of *Black Awareness* of Los Angeles Southwest College BSU (Black Students' Union) felt that "the students are not as interested in the studies as they should be. In my mind, they don't seem to understand the reason for studying themselves—about their own heritage. Actually they shouldn't need a reason! Yeah, they are saying, 'I'm Black and I'm Proud,' but it ends there—no willingness to learn it. Perhaps awareness is still yet to come!" [1].

In the eight Los Angeles junior colleges, 1231 students enrolled in one or more of 11 courses offered during the spring 1969 semester. The enrollment in the colleges was 86,000. At Merritt College, a higher percentage enrolled, with 956 taking one or more of the 15 courses offered in fall 1969. Merritt's student enrollment is approximately 10,000.

Another indication of the practical acumen of Black students may be deduced from the fact that at Los Angeles City College 301 students enrolled in the two courses, "The Afro-American in the Political and Social History of the United States" I and II, while only 239 enrolled in six other Black Studies courses. As mentioned above, the history courses satisfy state requirements and are transferable.

As a practical matter, Black militants and Black educators accept the fact that Black students have to make their way in an America that still places high value on the traditional education. A separatist nation or cultural pattern for Blacks is at best a dream, at worst a delusion. Without admitting any retreat from the separatist position, student militants and educators began advocating and initiating interdisciplinary programs for the associate in arts degree. At Merritt College, four major interdisciplinary patterns of Afro-American Studies enable a student to select (1) a general program with no specific concentration, or (2) one with a concentration in (a) Behavioral and/or Social Sciences, (b) Creative Arts, (c) Humanities and/or Language Arts. In July 1969, the Seattle BSU proposed several interdisciplinary programs similar to those at Merritt.

Listing courses in two or more departments attests to their importance and is a practical consideration. Students know that subject and unit requirements in a particular discipline determine acceptability for graduation, credentials, transfer, and majors. This accounts for listing, for example, "History of Africa" as History 27 and as Afro-American 6. This double entry, a practice of long standing, does not constitute a change.

It must be admitted that, with few exceptions, little real thinking has gone into the changes. Most colleges under pressure have hastily offered various courses in Afro-American studies that are, in essence, only traditional courses with an orientation toward Africa and Afro-American experiences. These are often combined into a curriculum and administered by a department or division.

Despite this empirical development, which was unavoidable under the circumstances, Black activists accomplished what many educators were unable to do by exhortation. As mentioned earlier, the Black activists have made significant gains in this regard. In addition to the Black Studies courses and curriculums, associate in arts degree programs in Afro-American studies are becoming common. Such programs have been instituted at Merritt College (California), which claims to a first in this, at Laney College (California), and at several junior colleges in Chicago, Los Angeles, and New York City. Transferability for these courses is also being granted by senior colleges and universities, many of which are also initiating majors and degree programs in Afro-American studies. [7].

Although Swahili and, now, Igbo have been introduced in some colleges, it is doubtful if either will replace any of the standard occidental or oriental languages. Black students are no more adept at learning a foreign language than white students.

If the addition to the junior college curriculum of Afro-American courses in history, literature, language, and humanities survives, this will rank with the student bill of rights and the demise of *in loco parentis* as the most far-reaching result of the current student activism movement. These courses constitute a more extensive addition to the curriculum than any introduced during the entire history of the junior college movement.

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A STAFFING RATIONALE FOR CURRICULUM DEVELOPMENT IN THE COMMUNITY COLLEGE

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In his book, *Realms of Meaning*, Dr. Phillip Phenix [3] indicated two major temptations in the revived interest in various curriculum patterns of knowledge. The first is to return to a traditional subject-matter curriculum related neither to the needs or abilities of the individual learner, nor to the social and psychological factors affecting education. The second is to construe knowledge too narrowly in purely intellectual terms, when analysis shows that the full development of human beings requires education in a variety of realms of meaning rather than in a single type of rationality. Phenix outlines these realms as follows:

Realms of Meaning	Disciplines
Symbolics	ordinary language, mathematics, non-discursive symbolic forms
Empirics	physical sciences, life sciences, psychology, social sciences
Esthetics	music, visual arts, arts of movement, literature
Synoetics	philosophy, psychology, literature, religion (in their existential aspects)
Ethics	the varied special areas of moral and ethical concern
Synoptics	history, religion, philosophy

Schwab [4], in a discourse on the structure of the disciplines, summarized the organizational problems as:

1. subject matter
2. practitioners
3. methods (syntax)
4. ends (kinds of knowledge or outcomes)

Auguste Comte's hierarchy has an important relationship to the past patterns of curriculum organization. This Comtian hierarchy of the sciences goes from mathematics to physics, to chemistry, to biology, and then to the social sciences.

Schwab claims that, because of its simplicity, this hierarchy of disciplines has been one of the most tyrannical and unexamined curriculum principles in our time, and has dictated at least 35 per cent of all the sequences of the sciences. A curriculum choice between the upward or downward version of the hierarchy cannot be made on subject-matter criteria alone, but instead the capacities of students, the ways that learning occurs, and the objectives must be looked at to make such a decision [4:18-21].

The current situation in most comprehensive community colleges suggests there is considerable dichotomy along the transfer versus career or vocational-technical curriculums, to say nothing of the gulf between such faculties. While a number of community colleges are developing an integrated approach, where the career programs are incorporated within the divisional structure, the faculty still lacks understanding of the various programs.

Typically, a two-year career program and transfer program might have most of the following elements:

	Career	Transfer
1st Semester	2 "major" courses English Comp. Social Sc. elective P.E. elective	2 "major" courses English Comp. Language P.E. elective
2nd Semester	3 "major" courses English Comp. Social Sc. elective P.E. elective	2 "major" courses English Comp. Language P.E. elective
3rd Semester	2-3 "major" courses Humanities elective P.E. elective	3 "major" courses Social Sc. Humanities P.E. elective
4th Semester	2-3 "major" courses 2 elective courses P.E. elective	3 "major" courses Humanities P.E. elective

On comparing these programs, one finds their similarity striking. Generally, six hours each of English, social science, and humanities, and eight hours of science and math are required for a degree fulfillment; when a student enrolls in such a program, his path of progress is fairly clear. The community college occupational or career programs are usually well organized and much publicized by appropriate brochures. From a staff organizational standpoint, little thought is given to ascribing a departmental status for such a program.

Within the transfer programs of the community colleges, with departments below the division organization level, the staff has difficulty trying to absorb, or to work with, the staff teaching those vocational courses. This problem occurred because the departments have structured themselves along the lines of the four-year colleges and the Comtian hierarchy.

In a comprehensive community college, the developmental program should serve both ends of the learning skills spectrum (speed reading as well as remedial reading, for example) and probably has, not a sequence, but rather a varying content drawn from a number of disciplines. A typical developmental program, while not "graduating" a student, might have the following components:

English	– (Comp.)	90
English	– (Reading)	95
Math	–	95
Bio	– (Natural Sc.)	99
Others	–	90, 99

Speed Reading

Honor Program
or Courses
(based on creativity)

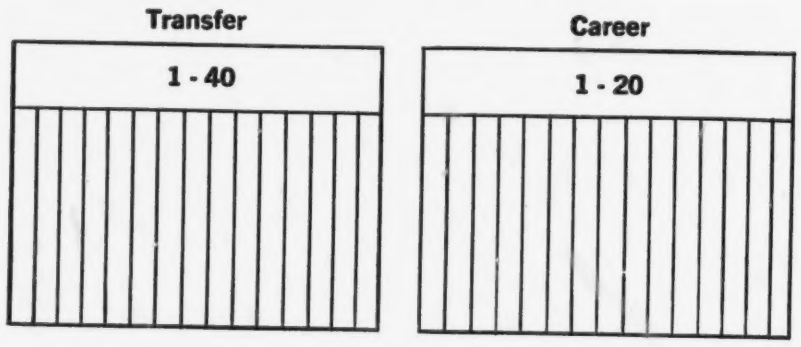
Other comprehensive community college commitments are in continuing education and in general education. While catalog definitions of general education vary, they usually express the theme of developing an individual as a useful, articulate citizen of our society. In discussing general education, Phenix [3:271] expressed his outlook on its role when he wrote:

> The curriculum of general education contains those provisions for learning that are necessary for the development of the person in his essential humanity. General education is contrasted with *specialized* education, which includes provisions for the development of particular competences for other purposes than the becoming of a person as a person.

General education may not graduate anyone either and,

actually, the continuing education courses may be considered under a separate column.

Thus, lined up, these vertical *program** components of a community college might look like this:



When a division staff organization is oriented horizontally across the programs, a grid is formed. For example, the mathematics staff in the Science Division, teaches courses that apply to the transfer, career, and developmental programs and may offer a course in the evening for adult or general education.

	Transfer	Career	Dev.	Gen. Ed.
SCIENCE DIVISION — Math	Math 101	Tech Math 106	Math 99	Slide Rule (Math-?)
Chem.				
Bio., etc.				

Thus, the mathematics staff, along with other components in the Division, provide instructional support service to the various programs. A more generalized Curriculum Organization Grid model of this might be as follows:

	Transfer	Career	Dev.	Gen. Ed.
DIVISIONS — 1. Sci.				
2.				
3.				
4.				
5.				

The staff structure is usually based on departments and aligned on the Comtian hierarchy, while the career or technical program staff organization is based on the particular *program* and its goals for the students. In a recent study of the undergraduate curriculum, Paul Dressel [1] perceived the nature of such problems when he stated that:

> A well-planned curriculum, of which an essential part is a statement of objectives and a rationale for the experiences provided, is a necessary structure in which instruction can be appropriately defined in relation to the learnings desired. If a faculty cannot or has not been able to agree on a comprehensive curricular design, good instruction will surely be fortuitous. It will also be individualistic in that it will be based on personality factors, and it will be isolated in that each "good" instructor becomes such by becoming a "character" rather than by becoming a contributor to a grand design.

Such a Curriculum Organization Grid (COG) model has a number of implications for the community colleges. First, the role of a *program coordinator** is to coordinate and supervise the instructional framework within which a student may attempt to reach an occupational (career) or cultural goal. His main responsibility is to ensure that the curriculum, as established in the catalog, is effectively meeting the needs and goals of students. Such a program coordinator should carry a partial teaching load depending on the size of the program staff and number of students and, in the transfer areas, he might supervise several programs. Another role is to organize cooperatively a program staff from the subject disciplines of the divisions. This would be an interdisciplinary approach, as appropriate teachers from almost every division would be supporting a given program.

Second, the use of such a Curriculum Organization Grid will reveal what might be called the "chaining effect" of basic or prerequisite courses, and has enormous implications for instructional planning. Such a course cannot be taught solely as though each student is going to be a major in that discipline. What needs to be answered is, what exact body of knowledge, attitudes (appreciations), and skills does any student, *regardless of his major*, have to "know" in such a course? In addition to this, what exact amount of knowledge, appreciations, and skills does a student, *because of his major*, have to "know" in such a course? At this point, the complex strategies and tactics of specifying *instructional objectives**, analyzing the learners, analyzing the learning tasks, sequencing these tasks, and validating the supporting instructional materials must be undertaken—little of which is currently being done anywhere! As a chaining effect, the chemistry courses listed in Harper College's 69-70 catalog look like this:

CHM 100 → 101 (Intro) — Math 95 (or a C in H.S. algebra)

CHM 110 (Chem Tech)

CHM 121 (Gen'l) → 122 → 210 → 211, 240 → 241

Math 103 ↓

CHM 131 (College Chem) → 132 → 204 → 205

(Arrows denote prerequisites)

*As used here, *program* means a vehicle of instruction composed of a curriculum or series of courses for a period of time that will provide an instructional framework within which a student may attempt to reach an occupational or cultural goal.

*As used here, *program coordinator* connotes a faculty member who is responsible for leading, coordinating, and supervising personnel for the development of curriculum for certain program(s).

*As used here, *instructional objectives* denotes those statements originated by the instructors concerning anticipated student achievements within a course or portion thereof, which are expressed in such terminology as to make the evaluation of these achievements possible by these instructors and their *students*.

It can be seen that the chemistry courses and staff are servicing both the transfer programs and the career programs (CHM 110). The chaining effect is also evident in CHM 121-122 for six other courses, and in CHM 131 for two others.

If such a chaining of courses is "where the action is," a key person in this concept would be a *course coordinator*° whose main task is to oversee such basic courses as the CHM 121-122. Another function would be to insure that the appropriate instructional objectives, course sequencing, etc. are being planned, whether by himself or another staff member.

The course coordinator could also relate the learning resource needs to that particular course in a way not possible before. The materials, the development, production, or purchase costs, as well as their use could be proportionally accounted in direct support of each program. He is most effective with the basic courses, or those with multisections, as his tasks are first-line instructional responsibilities to ensure that the effective learning materials, techniques, and sequences are developed and organized for that particular course. The impact of emphasizing the staff and support relationships at this basic course level is that, if a student misses or fails to "understand" some of the basic concepts within such a course, then the potential of failure, dropping out, poor grades, or misunderstanding at the next course level has been increased drastically.

The program coordinator "manages" the curriculum and staff that comprise a particular program. He also articulates between the student services personnel, administration, division chairmen, and deans (transfer or vocational-technical) who then articulate with the state agencies, colleges, and other institutions. Once a curriculum has been set up and implemented, his function becomes one of maintenance.

The chart below outlines major distinctions between the program and course coordinators:

Program Coordinator Functions

1. holds program staff meetings
2. coordinates matters relating to curriculum revisions
3. acts as liaison between course coordinators and upper administrative levels for articulation problems. Also assists extra-institutional articulation
4. if within a division line structure, assists the division chairman in selecting and hiring staff to service the program
5. performs other such functions as necessary to maintain the program's effectiveness
6. relays changes to the Curriculum or Academic Affairs Committee

Course Coordinator Functions

1. organizes or supervises the development of course outlines, units, learning sequences, etc. Is prime evaluator of student achievement
2. coordinates the instruction in other sections of the same course to see that students get similar instruction
3. requests instructional support materials
4. attends program staff meetings when appropriate
5. suggests course content changes to program coordinator as they would affect his program
6. relates course changes to other courses in the chain
7. relays course method changes to Instruction Improvement Committee for evaluation and dissemination

From an administrative or budget standpoint, a college should put more emphasis on the support of the course coordinator than of the program coordinator. The rationale is that the program coordinator is maintaining the system and his major involvement is chairing meetings and articulating. The course coordinator, being at the focal point of instruction, bears a greater responsibility for the success of the students. There are several formulas to assist in calculating staff and budget for course coordinator functions. In Florida, for example, the colleges, if they so choose, could apply line 5 (5 per cent of the total instructional salaries for faculty and program development) of the "Minimum Foundation Program for Junior Colleges." Another formula° has fifteen steps. It considers the courses, enrollments, percentage per course, credits per course, mean class size, number of instructors and staff, etc. to arrive at a mean product. The method of teaching, the number and length of classes or labs per week, the nature of planning and development, and instructional administration all have a direct application to estimating course coordinator involvement in curriculum development if applied to the grid model.

The Curriculum Organization Grid model and the chaining effect schematic are not a cure-all of the staffing problems at the community colleges. The following grid uses are suggested:

1. for staff meetings—planning and discussion
2. organization of instructional staff for effective teaching
3. placing the emphasis on curriculum and instructional development rather than on "maintaining the system"
4. to permit each faculty member a "place in the sun" and relate his instructional activities and skills to the various programs offered by the college (differentiated teaching)
5. allowing judicious use of supporting staff and services based on the appropriate formula
6. providing for possible organization of staff with balanced functions and appropriate span of control; also for adjustments along staff and line functions
7. providing for expansion along divisional lines into a multicampus operation or along program lines to provide greater educational services to the community.

Such a grid arrangement allows new orientations and conditions to emerge within a college, and can assist those new comprehensive community colleges searching for a more all-encompassing expression of the framework within which they might function.

Much of what the grid and the staffing suggest allows for change and innovation by providing the pattern of local leadership, establishing communication channels, participation, flexibility, and patterns for continued use of the innovations. These would help reduce the problems of what McClelland [2] called "attitudes of reticence, suspicion, and fear" and the "management problems and funding problems." Likewise, it attempts to present alternative solutions to the organizational problems and temptations suggested by Schwab and Phenix. It is a breakthrough in the curriculum crust that has evolved from Comtian hierarchy, and uses the course coordinator as Dressel's "contributor of a grand design."

°*Course Coordinator* is a faculty member who is responsible for leading, coordinating, and supervising personnel for the development of curriculum for a *specific subject* area or course.

°Referred to as the "McCabe Formula," since it was implemented by former President Robert McCabe at Essex College, Newark, New Jersey. A copy is appended to this article.

APPENDIX

"McCABE FORMULA"

DIRECTIONS FOR PREPARING STAFFING PROPOSAL

Column 1
Course

List all the courses you intend to teach during the Fall Term. The Fall Term is used because enrollment is at its peak then.

Column 2
Preceding Fall Term enrollment on which projections are based

List the enrollments in each course for the Fall Term of the preceding year. (Normally, the registrar will furnish this information.) If you plan to teach all sections using the same staffing arrangements, you should combine all enrollments for multiple section courses into one total. If you plan to vary the method of staffing, figure a mean product for each arrangement.

Column 3
This represented what percentage of the total college enrollment taking the course during that term

Your registrar should be able to determine for each course the percentage of the previous year's total college enrollment that particular course contributed. (To do this, divide Column 2 by the preceding Fall Term enrollment.)

Column 4
Projected enrollment

Take the total projected enrollment for the college and multiply that by Column 3.

Column 5
Credits per Enrollment

To complete this column, refer to the catalog and merely fill in the number of credits listed for the course.

Column 6
Total student semester hours

Multiply the number of students you anticipate will take the course (Column 4) by the credits per enrollment (Column 5).

Column 7
Method of Teaching (breakdown into lecture, lab., large group, small group, etc.)

Here you list the number of hours for each type of instruction used in teaching the course. Break this down according to the number of hours of lecture, lab, etc. If the course is taught using different size classes, (i.e. large lecture, small group) indicate this. One line should be entered for each grouping arrangement with an additional summary line for the total course.

Column 8
Clock Hours per week

The total number of clock hours per week is obtained by multiplying the projected enrollment for each course (Column 4) by the number of hours per week for each type of instruction used in teaching the course.

Column 9
Anticipated *mean* group size

The anticipated mean class size is normally established by the department.

Column 10
Number of Class or lab hours per week

The number of class (or lab) periods per week is determined by dividing the clock hours per week (Column 8) by the anticipated mean size of the class. Separate calculations for each portion of the course (i.e. lab, large lecture, small lecture, etc.) are required.

Column 11
Number of Instructors

To find the number of instructors required to teach a particular course, divide the number of classes (or labs) per week required for each method of instruction by the average teaching load of a faculty member (15 semester hours for lecture courses, 20 clock hours for activity and lab courses or whatever your load policy requires).

Column 12
Development

For some organizational arrangements time is required for planning and development. This is computed by equating this time released from instruction as a portion of an instructor.

Column 13
Administration

Released load for department chairmen or administration of a large enrollment course is recorded. Administration of a level above department chairman (Dean, Associate Dean, Division Director, etc.) is not charged to the instructional program in these computations.

Column 14
Staff Requirement

The total staff requirement for the course is the total of columns 11, 12, and 13.

Column 15
Mean Product

The mean product is the key to the entire formula. At Essex County College we operate on a 26.1 student teacher ratio, which converts into a mean product of 390. (Twenty-six students at 15 semester hours each equals 390 or one instructor). This is not to say that each course must have a mean product of at least 390, but that the average for the college must be 390. This means that we must balance small classes and released time with large lecture classes and other organizational patterns.
To determine the mean product, take the semester hours for *each* course (Column 6) and divide this by the total number of staff needed for *that* course (as shown in Column 11).

Note: To get an average mean product for a department, division, etc., take the total number of student semester hours produced (sum of Column 6) and divide by the total number of staff required (sum of Column 14). *Do not add the sum of Column 15 and divide by the number of entries.* Each mean product has a *weighted value.*

Total
Number of instructional staff required

To determine the number of personnel needed for the instructional program, get the sum of column 14*.

*If a department chairman is responsible for more than one course, enter a separate line at the end of the total department offering in order to list his released load for administration.

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INTERCAMPUS CURRICULUM COORDINATION IN AN URBAN COMMUNITY COLLEGE SYSTEM

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Multicampus systems of community colleges face the same problem of curriculum administration everywhere: to preserve the birthright of human individuality within the framework of large-scale bureaucracy. For community colleges, this challenge has a somber ring. The multicampus role is seemingly alien to their traditional style of community orientation, although state and university control in a number of commonwealths might suggest otherwise. Junior colleges have, in fact, been in the vanguard of multicampus organization, but urbanization adds new dimensions to the meaning of community, historically an order of social organization close to the human heart. In the urban setting there is no end to community, for there is no end to the size of one's social world.

The problem is not merely one of organizational bigness, nor can it be solved by the simple expedient of a "states'-rights" kind of campus autonomy, as the Los Angeles Community Colleges have found out. The urban college must take an input of students from commuting surroundings and produce an output educated for residential and occupational destinations perhaps far away. If it fails to do this, it fails in its upgrading and democratizing mission. To the commuting environment, meanwhile, comes a steady stream of immigrants bringing their own cultural characteristics, remaking the urban milieu. Furthermore, minority militancy is laying stress on an ethnic identification that inevitably turns back on segregated communities within the urban complex. While suburbia loses its sense of community identity, the ethnic islands of the inner city clutch it to their breasts, in keeping with a long line of Americanization well known to Jews, Italians, Poles, and Irish, who were somehow also outside the mainstream of WASP-oriented integration. The concept of a melting pot is an overrated ideal.

This new scale of things implies something, not only about the development of relevant curricula, but also about their intercampus coordination, since community colleges are charged, as always, with operating on a basis of stringent economy. Scale also implies something about articulation with transfer institutions, which, for well-known reasons, may be laggard in response. Urbanization has no inherent connection with campus autonomy—nor, for that matter, with the accident of governance. In any urbanized area, there should be a rationale for the offering of expensive occupational training that cuts across campus and even district organization. In such a region, there should be machinery for the coordinated advisement of transfer students. While the number of students actually transferring from any one campus may be relatively few, their number in the whole urban region is large.

The Value of X

Urbanization brought about a metamorphosis in the Los Angeles Junior College District. City College had been one of the largest institutions of its kind for 16 years, when, in 1945, a second campus was founded. Five years later, the district had seven autonomous campuses, each free to respond to its own vaguely defined community. With the proliferation of institutions came a proliferation of courses, curricula, requirements, standards, policies, deadlines, and regulations. Although residents of the district could move freely from one campus system to another, they were harassed by inconsistencies. The instructional and administrative staffs were duplicating each other's efforts and mistakes, at some expense to the taxpayers of every cultural identification. Intersystem, horizontal communication was missing, while urbanization brought mobility and interdependence. Furthermore, both semiprofessional curricula and transfer institutions were proliferating, with a synergistic effect on requirements. The need for coordination was obvious. Within the Los Angeles Junior College District, the problem was how to achieve coordination, internally and externally, without undermining campus systems autonomous in things that really mattered. It was a problem that could be stated as an equation. If X coordination equals the value of uniformity minus the value of autonomy, find X [7].

By 1955 the deans of instruction were grappling with this problem. With the aid of department chairmen, subject matter specialists, and community-oriented advisory committees, they had reviewed all the courses offered in the district. They had classified courses under subject matter headings, devised cataloging principles, and assigned uniform course numbers, titles, and unit values. Circles of experience had been made to overlap, and the proper place of subsystems had been defined. The deans of instruction continue to sit as a council, with a coordinator, measuring new proposals against feedback from all sources. Course control is excellent. While the numbers of students and curricula have multiplied many times over, the number of courses offered has remained constant and could easily be coded for the teleprocessing of transcripts [4]. As executive secretary, the coordinator maintains a central office where he negotiates articulation agreements with the transfer institutions, issues equivalency bulletins, publishes an annual annotated district catalog of courses, makes annual reports, and does studies of current interest. In this way information flows to administrators, chairmen, counselors, instructors, and students. And as current interest in these documents lapses, they become a historical record [3]. The council is responsive to students, faculties, and communities, and when the coordinator speaks to transfer institutions, he speaks with some weight.

Even so, there is no force working to promote distinctive campus flavors. Perhaps this in inherent in urbanization. But to a system in dynamic equilibrium, true innovation comes only from an outside threat [8], as seen in the precipitous institution of ethnic studies. In California, such a threat arose in a 1968 legislative bill that was stopped only by the governor's veto. This bill would have created a number of vocational regions, each with a committee of three representatives from junior college districts, three from high school districts, one from the Department of Employment, and five from the public to speak for the industries of the area. Each regional vocational committee would have been empowered to make recommendations directly to the State Board of Education, to the Board of Governors of the California Community Colleges, and to "any other appropriate policy-making body" regarding "maximum coordination between vocational, technical, adult, and continuation education agencies within the region, together with recommendations for the implementation of" a five-year "master plan for the region" [10].

Shaping truly democratic methods for governing bigness is one of the crucial problems of our time. It is the old problem of the rights of the individual versus the rights of all. Traditionally, solutions have been sought in modes of representative government and modes of decentralizing toward local autonomy. Of course finding the ultimate value of X is no simple problem, for as in the case of white supremacy in the South, local autonomy can promote the worst kind of tyranny. There is a tendency to see bureaucracy as something imposed by boards, superboards, and legislatures, but, throughout, academic organization reflects Weberian rules (lockstep education), a hierarchy of authority (academic and administrative

rank), expertise (disciplinary specialization), and impersonality (scholarly objectivity and faculty committees). It reflects privilege, tenure, seniority, retirement, and vested interest. The thrust is always toward greater security and less responsibility for the individual member of the system. Self-serving bureaucracy does not thrive only in the echelons of administration; its roots drive deep into every academic and vocational department [1]. Still, in their own world, educational institutions must persevere in retaining the principles of autonomy so characteristic of the American genius and so essential to the search for, and the propagation of, the truth. Even aside from this, and in an immediate and practical sense, they must find ways to preserve the impulse to be hard and to prevent the alienation of the students.

Feedback and the Dinosaur

In the Los Angeles City School System there were, until recently, two legal identities—a unified district and a junior college district—but they were governed by the same board of education and administered by the same superintendent. Thus the colleges shared the same problems that hamper those that are integral parts of large unified and high school districts. Between the colleges and the superintendent stood an array of assistant and associate superintendents in charge of the service divisions—Budget, Controlling, Personnel, Business. In fairness, it must be said that, while there was a Division of Instructional Services, the colleges were allowed almost complete freedom in the development and coordination of curriculum, but the associate superintendent in charge of Instructional Services could—and did—determine who the College Curriculum Coordinator was to be. As a matter of organizational principle, the assistant and associate superintendents outranked the college presidents and were not accountable to the Junior College Central Office. An untenable organization produced an inevitable reaction and, effective July 1, 1969, the people made the Los Angeles Junior College District independent, with its own governing board and administrative superstructure.

The success of any system of communication has two limiting factors—the volume of traffic and the efficiency of the coding and decoding processes. As in a telephone network, the first limiting factor has to do with the time it takes to get a message through—and it may fail to get through at all. The second limiting factor has to do with the symbols used. The parties at both ends have to speak the same language [5]. For these reasons, certain organization features are prized by professional personnel. A master plan embodying these features would frame an independent district. Its central office would be disassociated from parallel campuses. It would coordinate instruction, business affairs, vocational education, and some aspects of community services and research. But each campus would be autonomous, each would offer a comprehensive program, and its chief administrator would outrank all staff-function personnel. He would report directly to the district superintendent [6]. If one looks at these criteria, he will see that in every case they assume the principle of self-guidance mechanisms, as in the money market or the movement of impulses in a neural network. When structural relationships confuse the boundaries of systems and impede the flow of feedback, the most serious problems in communication and morale develop. At the present time, the Los Angeles Community Colleges meet all these organizational criteria, but the millennium has not arrived.

The system is troubled by the newness of the central office and the resultant clogging; it has been shaken by social revolution and political backlash; and serious philosophical differences have appeared between the new governing board and the professional personnel of the district. It remains to be seen what impact these developments will have on the development and coordination of curriculum in a massive, grass-rooted system. The ultimate resolution lies in the secret heart of the people, who "say and unsay, put up and tear down and put together again . . . ." [11]. With distress signals coming from both the students and the electorate, professional educators must respond innovatively. Tenure and privilege are a perilous defense. Of course, organization charts never tell the whole story. There are personalities, traditions, vested interests, and all the intangible aspects of informal organization, including the spies of legitimate caucus and the rolling of leadership heads. In the end, only the will and purpose of the people make any system work. A standard textbook, based on the organizational implications of basic research in the behavioral sciences, puts the matter this way:

> The organization and the environment must come to terms with each other—the organization establishing and attaining purposes wanted by the environment, and the environment supporting the organization that satisfies its wants. Similarly, the individual and the organization must come to terms with each other by the individual accepting and facilitating the attainment of the purposes of the organization, and the organization satisfying the wants of the individual [9].

Communication is the nervous system of any organization, physical, organic, or social, not in the narrow sense of media, public relations, or propaganda, but in the fundamental sense of organic structure. So it is with the administrative organization for the development and coordination of curriculum. Apply a rubber hammer to the patella tendon, and you will get a reflex action. Otherwise, something is wrong, and ultimately it will correct itself or cause extinction. The dinosaur evolved a secondary brain at the base of the spine. It was a nervous booster that served much the same purpose as the fireman at the back of a ladder wagon—it steered the rear end around corners. Interlocking systems are greater than their parts; that is to say, such subsystems as campuses, faculties, student governments, the administrative cadre, central office personnel, and governing boards. The object lesson is simply this: any system, however low or high in its hierarchy, must interface with its relative systems or go the way of the dinosaur.

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